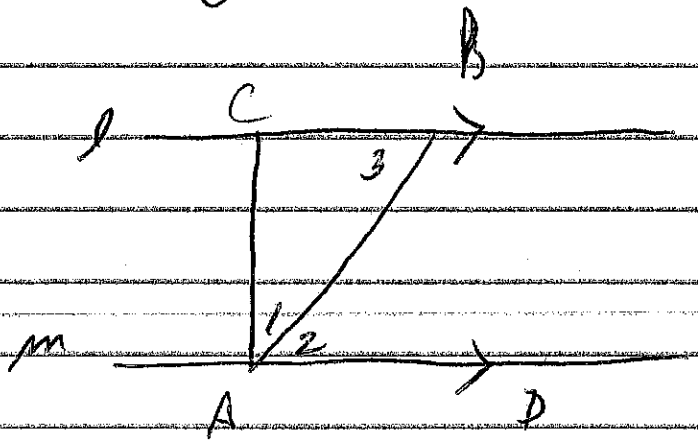
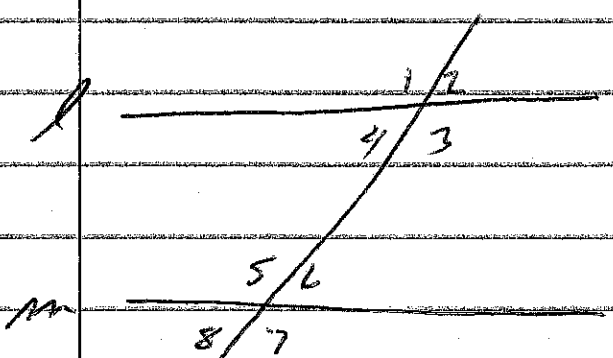
Proofs



G: $l \parallel m$; $\overline{AB}$ bis. $\angle CAD$

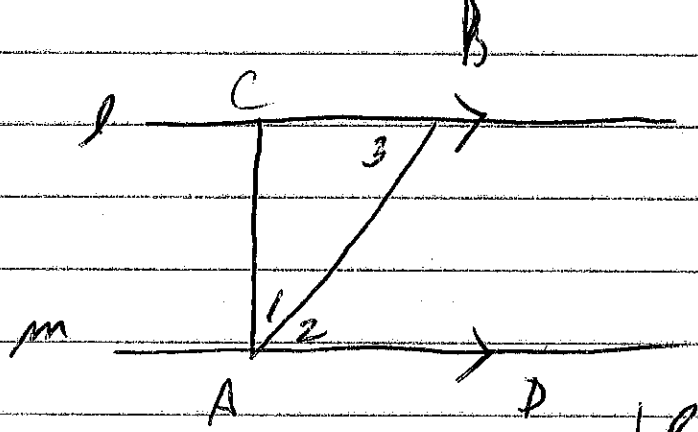
P: $\angle 3 \cong \angle 1$



G: $l \parallel m$

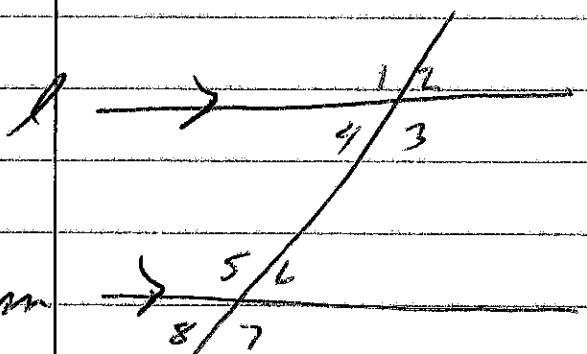
P: $\angle 1 + \angle 6$ are suppl.

Key Proofs



G: $l \parallel m$; $\overline{AB}$ bis. $\angle CAD$
P: $\angle 3 \cong \angle 1$

S.	R
① $l \parallel m$ $\overline{AB}$ bis. $\angle CAD$	① Given
② $\angle 3 \cong \angle 2$	② If ||, alt int $\angle$s $\cong$
③ $\angle 2 \cong \angle 1$	③ def of $\angle$ bis
④ $\angle 3 \cong \angle 1$	④ trans. prop



G: $l \parallel m$
P: $\angle 1 + \angle 6$ are suppl.

S	R (Not the only way)
① $l \parallel m$	① Given
② $\angle 6 + \angle 3$ are suppl.	② If ||, s-side int $\angle$s are suppl.
③ $\angle 3 \cong \angle 1$	③ Vert. $\angle$s $\cong$
④ $m\angle 3 + m\angle 6 = 180$	④ def of suppl.
⑤ $m\angle 3 = m\angle 1$	⑤ def of $\cong$
⑥ $m\angle 1 + m\angle 6 = 180$	⑥ subst
⑦ $\angle 1 + \angle 6$ are suppl.	⑦ def of suppl.